

REMARKS: WELL LOG \_\_\_\_\_ ELECTRIC LOGS \_\_\_\_\_ FILE ☒ WATER SANDS \_\_\_\_\_ LOCATION INSPECTED \_\_\_\_\_ SUB. REPORT/ABD. \_\_\_\_\_

DATE FILED 8-13-79

LAND: FEE &amp; PATENTED STATE LEASE NO.

PUBLIC LEASE NO. U-17049

INDIAN

DRILLING APPROVED: 8-10-79

SPUDDED IN:

COMPLETED:

PUT TO PRODUCING:

INITIAL PRODUCTION:

GRAVITY A.P.I.

GOR:

PRODUCING ZONES:

TOTAL DEPTH:

WELL ELEVATION:

DATE ABANDONED 11-10-80 Location Abandoned - Well Never Drilled

FIELD: Wildcat 3/86 Chester Cisco

UNIT:

COUNTY: Grand

WELL NO. East Cisco Federal 1-4

API NO: 43-019-30537

LOCATION 1612' FT. FROM (N) ~~XX~~ LINE.1591' FT. FROM ~~XX~~ (W) LINE.

SE NW 1/4 - 1/4 SEC. 1

TWP.	RGE.	SEC.	OPERATOR	TWP.	RGE.	SEC.	OPERATOR
20S	23E	1	BURTON/HAWKS INC., -MADEX				

FILE NOTATIONS

Entered in NID File ..✓.....  
Location Map Pinned .....  
Card Indexed ..✓.....

Checked by Chief .....  
Approval Letter .....  
Disapproval Letter .....

COMPLETION DATA:

Date Well Completed .....  
..... WW..... TA.....  
GW..... OS..... PA.....

Location Inspected .....  
Bond released  
State or Fee Land .....

LOGS FILED

Driller's Log.....  
Electric Logs (No.) .....  
E..... I..... Dual I Lat..... GR-M..... Micro.....  
BHC Sonic GR..... Lat..... MI-L..... Sonic.....  
GLog..... CLog..... Others.....

d  
10/11

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
GEOLOGICAL SURVEY

## APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

## 1a. TYPE OF WORK

DRILL ☒DEEPEN ☐PLUG BACK ☐

## b. TYPE OF WELL

OIL  
WELL ☒GAS  
WELL ☐

OTHER

SINGLE  
ZONE ☐MULTIPLE  
ZONE ☒

## 2. NAME OF OPERATOR

Burton/Hawks, Inc. - Madex

## 3. ADDRESS OF OPERATOR

P.O. Box 359, Casper, Wyoming, 82602

## 4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.)

At surface

1591 FWL 1612 FNL Section 1, T20S, R23E, S14B. &amp; M.

At proposed prod. zone

## 14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE\*

9 miles North of Cisco, Utah

## 15. DISTANCE FROM PROPOSED\*

LOCATION TO NEAREST  
PROPERTY OR LEASE LINE, FT.  
(Also to nearest drlg. unit line, if any)18. DISTANCE FROM PROPOSED LOCATION\*  
TO NEAREST WELL, DRILLING, COMPLETED,  
OR APPLIED FOR, ON THIS LEASE, FT.

## 16. NO. OF ACRES IN LEASE

600

17. NO. OF ACRES ASSIGNED  
TO THIS WELL

40

## 19. PROPOSED DEPTH

2900'

## 20. ROTARY OR CABLE TOOLS

Rotary

## 21. ELEVATIONS (Show whether DF, RT, GR, etc.)

Ungraded ground 4821' elevation.

## 23.

## PROPOSED CASING AND CEMENTING PROGRAM

SIZE OF HOLE	SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT
11'	8-5/8"	24.16	200'	To surface
7-7/8"	4-1/2"	10.60	2850'	Across pay

1. Drill 11' hole to 200', set 8-5/8" casing, cement to surface
2. Drill 7-7/8" hole to approximately 2850'
3. Run 4-1/2" casing if productive
4. P&A per USGS instructions if dry hole

Bond coverage provided under Nationwide Oil &amp; Gas Bond No. 4414852

IN ABOVE SPACE DESCRIBE PROPOSED PROGRAM: If proposal is to deepen or plug back, give data on present productive zone and proposed new productive zone. If proposal is to drill or deepen directionally, give pertinent data on subsurface locations and measured and true vertical depths. Give blowout preventer program, if any.

## 24.

SIGNED

TITLE

DATE June 19 1979

(This space for Federal or State office use)

PERMIT NO.

APPROVAL DATE

APPROVED BY

TITLE

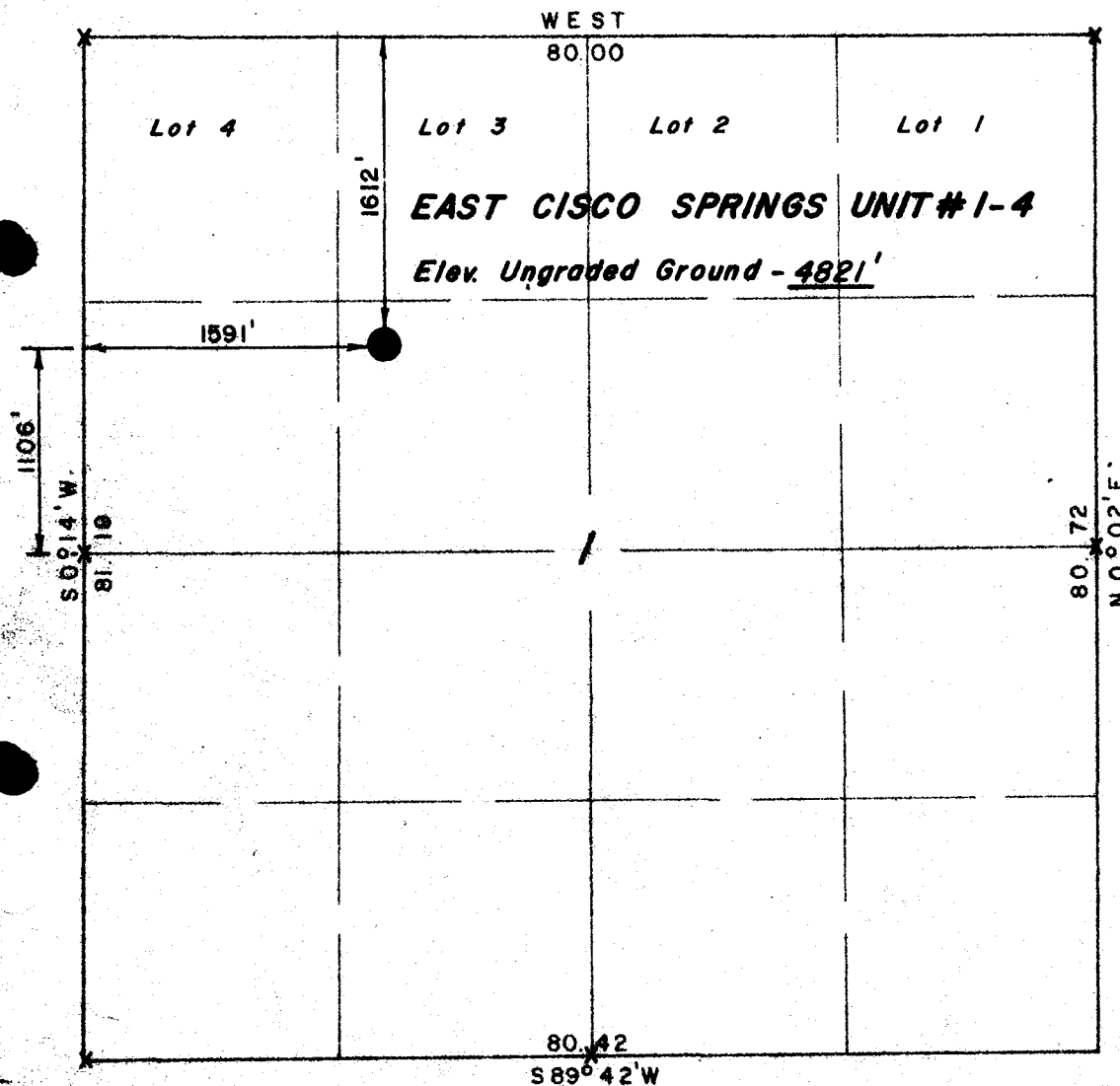
CONDITIONS OF APPROVAL, IF ANY:

T 20 S , R 23 E , S.L.B. & M.

PROJECT

**BURTON HAWKS DRILLING CO.**

Well location, **EAST CISCO SPRINGS UNIT #1-4**, located as shown in the SE 1/4 NW 1/4 Section 1, T20S, R23E, S.L.B. & M. Grand County, Utah.



CERTIFICATE

THIS IS TO CERTIFY THAT THE ABOVE PLAT WAS PREPARED FROM  
FIELD NOTES OF ACTUAL SURVEYS MADE BY ME OR UNDER MY  
SUPERVISION AND THAT THE SAME ARE TRUE AND CORRECT TO THE  
BEST OF MY KNOWLEDGE AND BELIEF.

Lane Stewart

REGISTERED LAND SURVEYOR  
REGISTRATION NO. 3154  
STATE OF UTAH

UINTAH ENGINEERING & LAND SURVEYING  
P.O. BOX Q - 110 EAST - FIRST SOUTH  
VERNAL, UTAH - 84078

SCALE	1" = 1000'	DATE	8/3/79
PARTY	GS DS DW RP	REFERENCES	GLO Plat
WEATHER	Fair	FILE	BURTON - HAWKS

X = Section Corners Located

BURTON/HAWKS, INC.  
10 POINT PROGRAM

Attachment to Form 9-331-C "Application to Drill, Deepen, or Plug Back".

1. GEOLOGIC NAME OF SURFACE FORMATION.

Cretaceous Mancos

2. ESTIMATED TOPS OF IMPORTANT GEOLOGIC MARKERS:

Cretaceous Dakota 1940  
Javasic Morrison 2050  
Salt Wash 2370  
Entrada 2730  
TD 2770

3. ESTIMATED DEPTHS OF ANTICIPATED WATER, OIL, GAS, OR OTHER MINERAL BEARING FMS

Water 100' Oil 2370'

4. CASING PROGRAM:

200' 8 5/8 Production 4 1/2 10.60

5. BOP PROGRAM: (See attached Figure 3)

6. DRILLING FLUID:

Air

7. AUXILIARY EQUIPMENT:

1. Kelly Cock
2. Drill pipe float
3. Stabbing valve on floor

8. TESTING, LOGGING, OR CORING:

Gamma Ray - neutron

9. ABNORMAL PRESSURE OR TEMPURATURE:

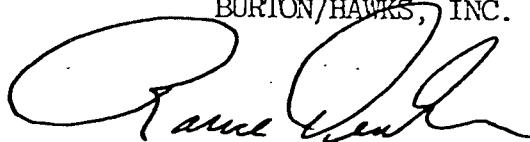
none

10. STARTING DATE:

September 1, 1979

Yours very truly,

BURTON/HAWKS, INC.



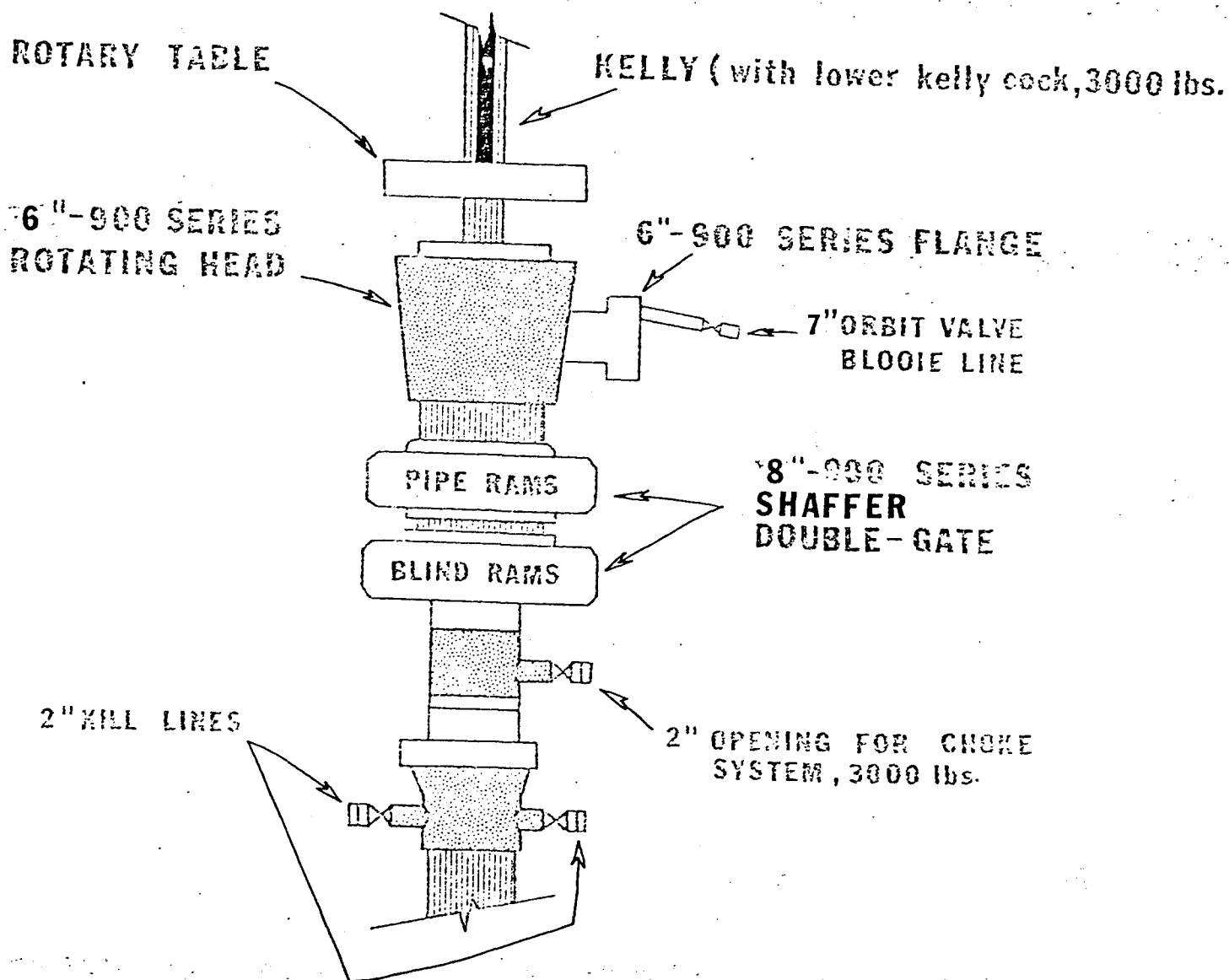
REW/grb

Rance Denton  
Drilling Superintendent

Attachment: Figure 3 (BOP Stack Diagram)

CC:

**BOP STACK**



rig no. 3

NOT TO SCALE

BURTON HAWKS DRILLING CO.

13 Point Surface Use Plan

For

Well Location

East Cisco Springs Unit #1-4

Located In

Section 1, T20S, R23E, S.L.B. & M.

Grand County, Utah

BURTON HAWKS DRILLING CO.  
East Cisco Springs Unit #1-4  
Section 1 , T20S, R23E, S.L.B. & M.

1. EXISTING ROADS

See attached Topographic Map "A".

To reach Burton Hawks Drilling Company, well location site East Cisco Springs Unit #1-4 , located in the SE $\frac{1}{4}$  NW $\frac{1}{4}$  Section 1, T20S, R23E, S.L.B. & M., Grand County, Utah; proceed Northerly out of Cisco, Utah, on the old U.S. Highway 6, 5.4 miles to its junction with a road to the Northwest; proceed Northwesterly along this road 5 miles to its junction with the proposed access road. (to be discussed in Item #2)

The Highway mentioned above is a bituminous surfaced road, all other roads in the area mentioned above are dirt roads constructed from the native materials that are prevalent to the areas they are located in.

There is no anticipated construction on any portion of the above described roads. They will meet the necessary standards required to facilitate an orderly flow of traffic during the drilling phase, completion phase, and the production phase of this well at such time that production is established.

The roads that are required for access during the drilling phase, completion phase, and production phase of this well, will be maintained at the standards required by the B.L.M. or other controlling agencies.

2. PLANNED ACCESS ROAD

See Topographic Map "B".

The proposed access road leaves the existing road in Lot 1, Section 1, T20S, R23E, S.L.B. & M. and proceeds in a Southwesterly direction 0.8 miles to the proposed location site in said Section 1.

In order to facilitate the anticipated traffic flow necessary to drill and produce this well, the following standards will be met:

The proposed access road will be an 18' crown road (9' either side of the centerline) with drain ditches along either side of the proposed road where it is determined necessary in order to handle any runoff from normal meteorological conditions that are prevalent to this area.

Back slopes along the cut areas of the road will be 1 $\frac{1}{2}$  to 1 slopes and terraced.

The road will be centerline flagged prior to the commencement of construction.



BURTON HAWKS DRILLING CO.  
East Cisco Springs Unit #1-4  
Section 1, T20S, R23E, S.L.B. & M.

2. PLANNED ACCESS ROAD - Continued

There will be 3 culverts required along this access road. These culverts will be placed under the direction of the B.L.M. and will meet their requirements. (See Topographic Map B)

The grade of this road will vary from flat to 8%, but will not exceed this amount. This road will be constructed from native borrow accumulated during construction.

If deemed necessary by the local governmental agencies or their representatives turnouts will be installed for safety purposes every 0.25 miles or on the top of ridges or at intervals and locations that will provide the greatest sight distance. These turnouts will be 200' in length and 10' in width and will be tapered from the shoulder of the road for a distance of 50' in length at both the access and outlet ends.

Any fences that are encountered along this road will be cut and replaced with a cattleguard with a minimum width of 18' and a loading factor large enough to facilitate the heavy trucks required in the drilling and production of this well.

If cattleguards are to be located at existing gates, they will be installed with the above requirements and with a new gate installed at one end of the cattleguard.

The access from the road to the gate will be of such a nature that there will be no impedance of traffic flow along the main access road and no difficulties encountered by traffic utilizing the gate, either leaving or entering the proposed access road.

The terrain that this access road traverses is relatively flat.

The vegetation of this route consists of sparse amounts of sagebrush, rabbitbrush, some grasses, and cacti with large areas that are devoid of vegetation.

3. EXISTING WELLS

See attached Topographic Map "B".

There are 2 wells within a one mile radius of this location site. (See attached Topographic Map "B" for location of these wells relative to the proposed location site.

BURTON HAWKS DRILLING CO.  
East Cisco Springs Unit #1- 4  
Section 1, T20S, R23E, S.L.B. & M.

3. EXISTING WELLS - Continued

There are no water wells, abandoned wells, temporarily abandoned wells, disposal wells, drilling wells, shut in wells, injection wells, monitoring or observation wells for other resources located within a one mile radius of this location site.

4. LOCATION OF EXISTING & PROPOSED FACILITIES

At the present time there are no known Burton Hawks Drilling Company tank batteries, production facilities, oil gathering lines, gas gathering lines, injection lines, or disposal lines within a one mile radius of this location site.

In the event that production of this well is established the existing area of the location will be utilized for the establishment of the necessary production facilities.

The total area that is needed for the production of this well will be fenced and cattleguards will be utilized for access to these facilities.

The area will be built if possible, with native materials and if these materials are not available then the necessary arrangements will be made to get them from private sources.

These areas will be built using bulldozers, graders, and workman crews to construct and place facilities.

It is not known at this time where production lines will be run. In the event production is established plans will be submitted to the appropriate agencies for approval before construction is begun.

If there is any deviation from the above, all appropriate agencies will be notified.

Rehabilitation of disturbed areas no longer needed for operations after construction is completed will meet the requirements of Item #10.

BURTON HAWKS DRILLING CO.  
East Cisco Springs Unit #1-4  
Section 1, T20S, R23E, S.L.B. & M.

5. LOCATION AND TYPE OF WATER SUPPLY

See Topographic Map "A".

Water to be used in the drilling of this well will be hauled from the Cisco, Utah, municipal water supply, this water will be hauled by truck over the roads described in Item #1 approximately 11 miles South of the location site.

In the event this is not a suitable source another source will be decided upon and all agencies involved will be notified.

There will be no water well drilled at this location site.

6. SOURCE OF CONSTRUCTION MATERIALS

All construction material for this location site and access road shall be borrow material accumulated during construction of the location site and access road. No additional road gravels or pit lining material from other sources are anticipated at this time, but if they are required, the appropriate actions will be taken to acquire them from private sources.

The native material that will be used in the construction of this location site and access road will consist of sandy-clay soil and sandstone and shale material gathered in actual construction of the road and location.

7. METHODS FOR HANDLING WASTE DISPOSAL

A reserve and burn pit shall be constructed, and at least half of the depth of the reserve pit shall be below the existing ground surface. All trash and flammable materials will be burned in the burn pit. Non-flammable material such as cuttings, salts, chemicals etc., will be buried in the reserve pit and covered with a minimum of four feet of earth material. Prior to the onset of drilling, the burn pit will be fenced on three sides. Upon completion of drilling the fourth side of the reserve pit will be fenced and allowed to dry completely before backfilling and reclamation are attempted.

A portable chemical toilet will be supplied for human waste.

All produced oil from this well will be contained in the storage tank and will be sold. Water, if any, which is produced will be run into a reserve pit as required in the NTL-2B Regulations.

BURTON HAWKS DRILLING CO.  
East Cisco Springs Unit #1-4  
Section 1 , T20S, R23E, S.L.B. & M.

8. ANCILLARY FACILITIES

There are no ancillary facilities planned for at the present time and none foreseen in the near future.

9. WELL SITE LAYOUT

See attached location layout sheet.

The B.L.M. District Manager shall be notified before any construction begins on the proposed location site and road.

As mentioned in Item #7, the pits will be unlined unless it is determined by the representatives of the agencies involved that the materials are too porous and would cause contamination to the surrounding area; then the pits will be lined with a gel and any other type of material necessary to make it safe and tight.

When drilling activities commence, all work shall proceed in a neat and orderly sequence.

10. PLANS FOR RESTORATION OF SURFACE

As there is some topsoil on the location site, all topsoil shall be stripped and stockpiled. (See location layout sheet). When all drilling and production activities have been completed, the location site and access road will be reshaped to the original contour and stockpiled topsoil spread over the disturbed area. Fences around pits are to be removed upon completion of drilling activities and all waste being contained in the trash pit shall be buried with a minimum of 4' of cover. The reserve pit will be completely fenced and allowed to dry before covering. When restoration activities have been completed, the location site and access ramp shall be reseeded with a seed mixture recommended by the B.L.M. District Manager when the moisture content of the soil is adequate for germination. The Lessee further covenants and agrees that all of said cleanup and restoration activities shall be done and performed in a diligent and most workmanlike manner and in strict conformity with the above mentioned Items #7 and #10.

11. OTHER INFORMATION

The Topography of the General Area - (See Topographic Map "A").

The area is a large valley known as the Grand Valley, which is formed by the Book Cliff Mountains to the North and numerous mesa's to the South with the Colorado River running through the valley floor. The area is interlaced with numerous canyons and ridges which are extremely steep with numerous ledges formed in sandstone, conglomerates, and shale deposits.

BURTON HAWKS DRILLING CO.  
East Cisco Springs Unit #1-4  
Section 1, T20S, R23E, S.L.B. & M.

11. OTHER INFORMATION - Continued

The majority of the surrounding drainages are of a non-perennial nature with normal flow limited to the early spring and extremely rare heavy thunderstorms, or rain storms of high intensity that lasts over an extended period of time and are extremely rare in nature as the normal annual precipitation is only 8".

All drainages in the immediate area are non-perennial streams and flow to the South and are tributaries to the Colorado River.

The soils of this semi-arid area are of the Uinta Formation and Duchesne River Formation (the Fluvial Sandstone and Mudstone) from the Eocene Epoch and Quaternary Epoch (gravel surfaces) and the visible geologic structure consists of light brownish-gray clays (OL) to sandy soils (SM-ML) with poor gravels and shales with outcrops of rock (sandstone, mudstone, conglomerates, and shales).

Due to the low precipitation average, climatic conditions and the marginal types of soils, the vegetation that is found in the area are common of the semi-arid region we are located in and in the lower elevations of the Uinta Basin. It consists of, as primary flora, areas of sagebrush, rabbitbrush, some grasses, and cacti, and large areas of bare soils devoid of any growth in the areas away from and in the vicinity of non-perennial streams and along the areas that are formed along the edges of perennial streams, cottonwood, willows, tamarack, sagebrush, rabbitbrush, grasses and cacti can be found.

The fauna of the area is sparse and consists predominantly of the mule deer, coyotes, pronghorn antelope, rabbits, and varieties of small ground squirrels and other types of rodents, and various reptiles common to this area.

The birds of the area are raptors, finches, ground sparrows, magpies, crows and jays.

The area is used by man for the primary purpose of grazing domestic livestock.

The Topography of the Immediate Area - (See Topographic Map "B")

East Cisco Springs #1- 4 sits on a relatively flat area below an area known as the Grassies.

BURTON HAWKS DRILLING CO.  
East Cisco Springs Unit #1-4  
Section 1 , T20S, R23E, S.L.B. & M.

11. OTHER INFORMATION - Continued

The geologic structure of the location is of Uinta Formation and consists of light brownish-gray clay (SP-CL) with some sandstone outcrops.

The ground slopes from the Northwest through the location to the Southwest at approximately a 2 % grade.

The location is covered with some sagebrush and grasses.

The total surface ownership affected by this location is owned by the B.L.M.

There are no occupied dwellings or other facilities of this nature in the general area.

There are no visible archaeological, historical, or cultural sites within any reasonable proximity of the proposed location site. (See Topographic Map "B").

12. LESSEE'S OR OPERATOR'S REPRESENTATIVE

Rance Denton  
Burton Hawks Drilling Co.  
P.O. Box 359  
Casper, Wyoming 82601

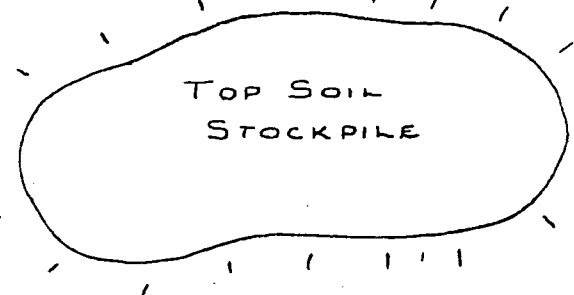
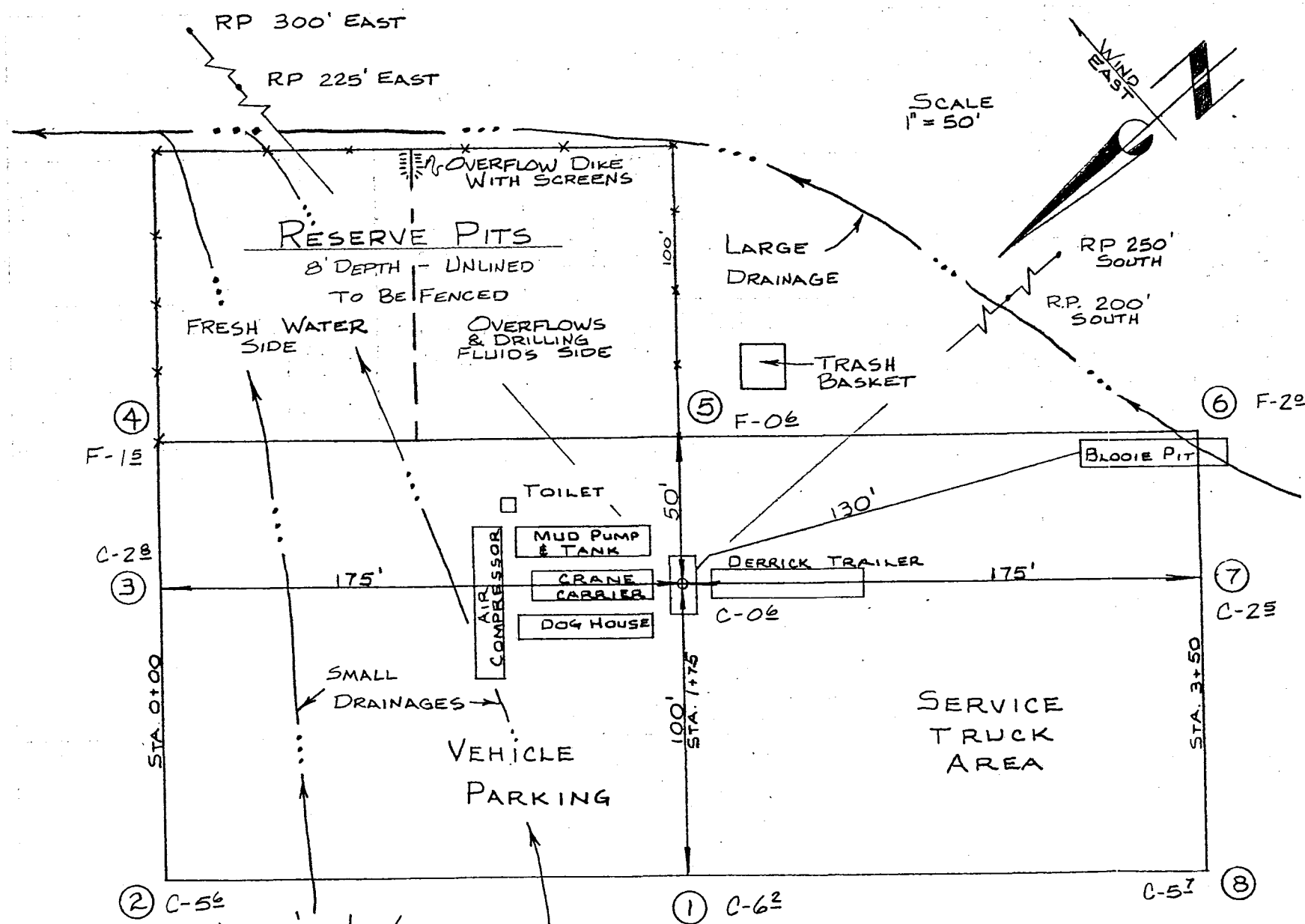
Telephone: 307-234-1593

13. CERTIFICATION

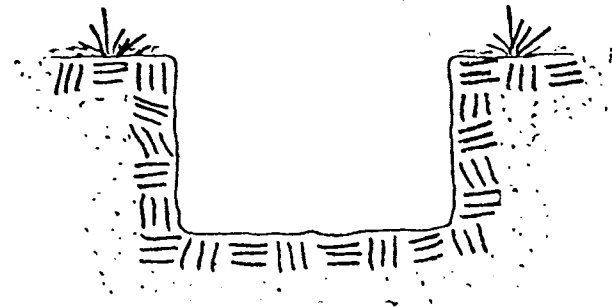
I hereby certify that I, or persons under my direct supervision have inspected the proposed drill site and access route; that I am familiar with the conditions which presently exist; that the statements made in this plan are to the best of my knowledge, true and correct; and that the work associated with the operation proposed herein will be performed by Burton Hawks Drilling Co. and its contractors and sub-contractors in conformity with this plan and the terms and conditions under which it is approved.

\_\_\_\_\_  
Date

\_\_\_\_\_  
Rance Denton  
Drilling Superintendent



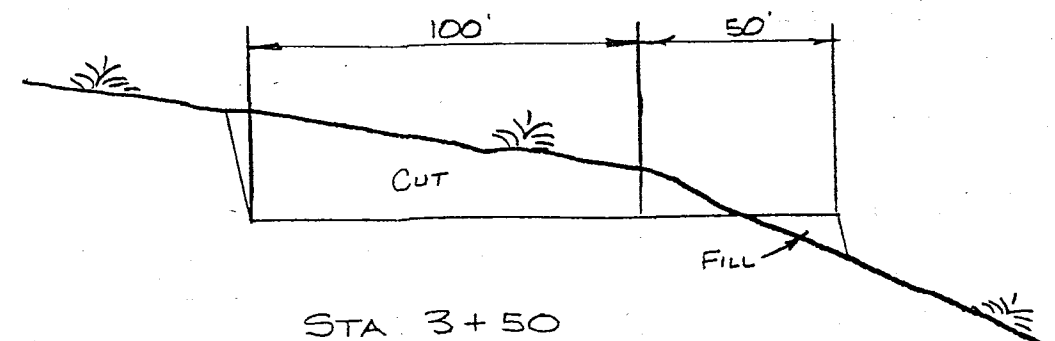
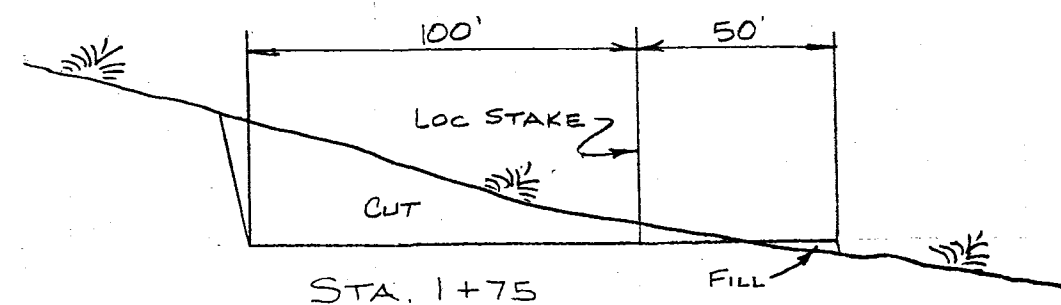
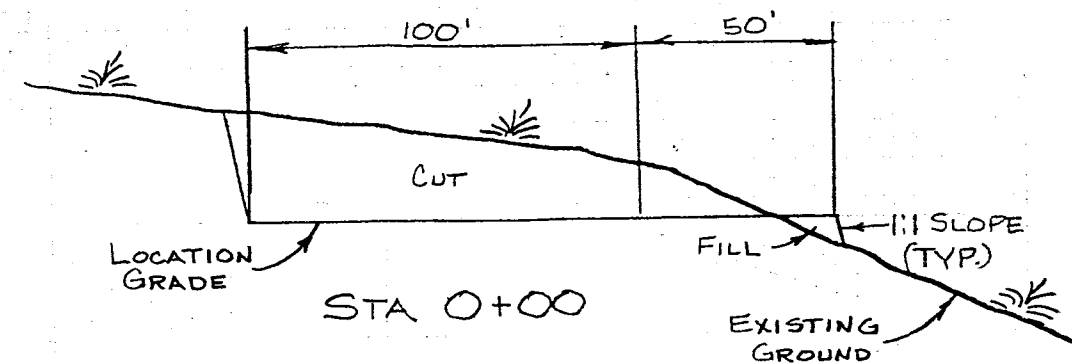
SOILS LITHOLOGY  
- NO SCALE -



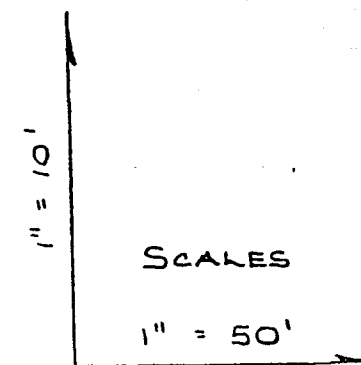
LIGHT BROWN  
SANDY CLAY

# BURTON HAWKS DRILLING COMPANY

## EAST CISCO SPRINGS UNIT #1-4 LOCATION LAYOUT & CUT SHEET



C  
R  
O  
S  
S  
S  
E  
C  
T  
I  
O  
N  
S



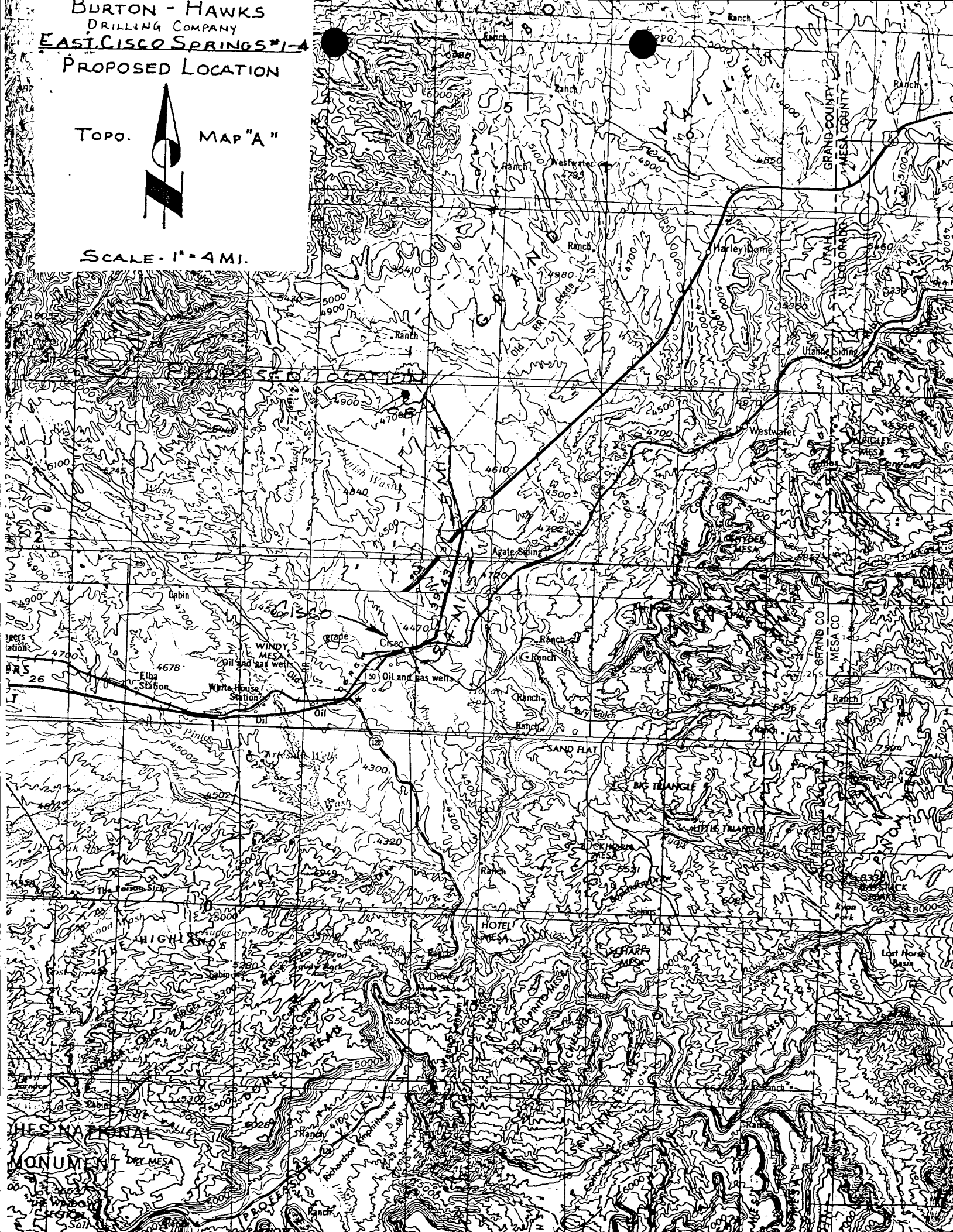
### APPROX. YARDAGES

CUT - 5,441	CU. YDS.
FILL - 175	CU. YDS.

BURTON - HAWKS  
DRILLING COMPANY  
EAST CISCO SPRINGS #1-A  
PROPOSED LOCATION

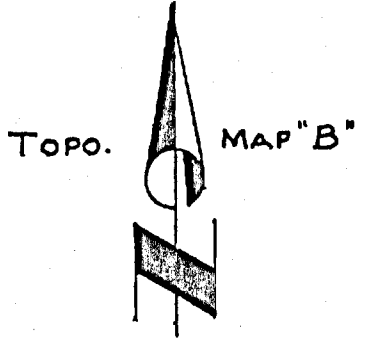


SCALE - 1" = 4 MI.





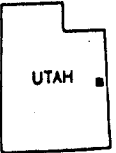
BURTON - HAWKS  
DRILLING COMPANY  
EAST CISCO SPRINGS #1-4  
PROPOSED LOCATION



SCALE - 1" = 2000'

ROAD CLASSIFICATION

- Primary highway, hard surface  
Secondary highway, hard surface  
Light-duty road, hard or improved surface  
Unimproved road  
Interstate Route  
U. S. Route  
State Route



QUADRANGLE LOCATION

PROPOSED LOCATION  
EAST CISCO SPRINGS UNIT #1-4

PROPOSED ACCESS ROAD

T195

T206

CULVERTS READ

R 23 E

R 24 E

BM 4699

5 MILES

CISCO MESA 5.4 MILES

United States Department of the Interior  
Geological Survey  
8440 Federal Building  
Salt Lake City, Utah 84138

## Usual Environmental Analysis

Lease No. U-17049  
Operator Burton Hawks Well No. 1-4  
Location 1591' FWL 1612' FNL Sec. 1 T. 20S R. 23E  
County Grand State Utah Field Wildcat  
Status: Surface Ownership Public Minerals Federal  
Joint Field Inspection Date September 4, 1979

## Participants and Organizations:

<u>Elmer Duncan</u>	<u>Bureau of Land Management</u>
<u>John Evans</u>	<u>U. S. Geological Survey</u>
<u>Dallas Galley</u>	<u>Casada, Dirt Contractor</u>
<u>Craig Denton</u>	<u>Operator's Representative</u>
<u>Jay Denton</u>	<u>Observer</u>
<u>Ollie Knutson</u>	<u>Dirt Contractor</u>
<u> </u>	<u> </u>
<u> </u>	<u> </u>

## Related Environmental Analyses and References:

- (1) Book Mountain Unit Resource Analysis, Bureau of Land Management, Utah
- (2)

Analysis Prepared by: John T. Evans, Environmental Scientist, Grand JunctionDate September 10, 1979

NOTED JOHN T. EVANS, JR.

9-12-79

Proposed Action:

On August 7, 1979, Burton Hawks filed an Application for Permit to Drill the No. 1-2 exploratory well, a 2900' oil and gas test of the Salt Wash Formation; located at an elevation of 4821' in the SE/4 NW/4, Sec. 1, T20S, R23E, on Federal mineral lands and public surface; lease No. U-17049. There was no objection raised to the wellsite nor to the access road. Concern was raised for the placement of wellsite in alluvial stream channel (flood plain). An alternate location ~~to~~ north or south was considered but rejected because of spacing.

A rotary rig would be used for the drilling. An adequate casing and cementing program is proposed. Freshwater sands and other mineral-bearing formations would be protected. A Blowout Preventor would be used during the drilling of the well. The proposed pressure rating should be adequate. Details of the operator's NTL-6 10-Point Subsurface Plan is on file in the U.S.G.S. District Office in Salt Lake City, Utah, and the U.S.G.S. Northern Rocky Mountain Area Office in Casper, Wyoming. The 13-Point Surface Protection Plan is on file in the District Office in Salt Lake City, Utah.

A working agreement has been reached with the Bureau of Land Management, the controlling surface Rehabilitation plans would be decided upon as the well neared completion; the Surface Management Agency would be consulted for technical expertise on those arrangements.

The operator proposes to construct a drill pad 150' wide x 350' long and a reserve pit 50' x 80'. A new access road would be constructed 18' wide x 0.8 mile long from an existing and improved road. The operator proposes to construct production facilities on disturbed area of the proposed drill pad.

If production is established, plans for a gas flowline would be submitted to the appropriate agencies for approval. The anticipated starting date is September 1979 and duration of drilling activities would be about ten days.

Location and Natural Setting:

The proposed drillsite is approximately 9 miles NNE of Cisco, Utah, the nearest town. A fair dirt road runs to within 0.5 mile of the location. This well is a wildcat well in the Danish Wash gas and oil field.

Topography:

The proposed location is a low terrace stream channel that trends east and west in an area known as the Grassies. The ground slopes to the SE.

Geology:

The surface geology is Mancos. The soil is silty shales and gravels derived from Mancos parent material. No geologic hazards are known near the drill site. Seismic risk for the area is minor. Anticipated geologic tops are filed with the 10-Point Subsurface Protection Plan.

Approval of the proposed action would be conditioned that adequate and sufficient electric/radioactive/density logging surveys would be made to locate and identify any potential mineral resources. Production casing and cementing would be adjusted to assure no influence of the hydrocarbon zones through the well bore on these minerals. In the event the well is abandoned, cement plugs would be placed with drilling fluid in the hole to assure protection of any mineral resources.

The potential for loss of circulation would exist. Loss of circulation may result in the lowering of the mud levels, which might permit exposed upper formations to blow out or to cause formation to slough and stick to drill pipe. A loss of circulation would result in contamination due to the introduction of drilling muds, mud chemicals, filler materials, and water deep into the permeable zone, fissures, fractures, and caverns within the formation in which fluid loss is occurring. The use of special drilling techniques, drilling muds, and lost circulation materials may be effective in controlling lost circulation.

A geologic review of the proposed action has been furnished by the Area Geologist, U. S. Geological Survey, Salt Lake City, Utah.

The operator's drilling, cementing, casing and blowout prevention programs have been reviewed by the Geological Survey engineers and determined to be adequate.

#### Soils:

No detailed soil survey has been made of the project area. The topsoils in the area range from a sandy clay to a clay type soil. The soil is subject to runoff from rainfall and has a high runoff potential and sediment production would be high. The soils are mildly to moderately alkaline and support the salt-desert shrub community. The pinyon-juniper association is also present.

Topsoil would be removed from the surface and stockpiled. The soil would be spread over the surface of disturbed areas when abandoned to aid in rehabilitation of the surface. Rehabilitation is necessary to prevent erosion and encroachment of undesired species on the disturbed areas. The operator proposes to rehabilitate the location and access roads per the recommendations of the Bureau of Land Management.

Approximately two acres of land would be stripped of vegetation. This would increase the erosional potential. Proper construction practice, construction of water bars, reseeding of slope-cut area would minimize this impact.

#### Air:

No specific data on air quality is available at the proposed location. There would be a minor increase in air pollution due to emissions from rig and support traffic engines. Particulate matter would increase due to dust from travel over unpaved dirt roads. The potential for increased air pollution due to leaks, spills, and fire would be possible.

Relatively heavy traffic would be anticipated during the drilling-operations phase, increasing dust levels and exhaust pollutants in the area. If the well was to be completed for production, traffic would be reduced substantially to a maintenance schedule with a corresponding decrease of dust levels and exhaust pollutants to minor levels. If the project results in a dry hole, all operations and impact from vehicular traffic would cease after abandonment. Due to the limited number of service vehicles and limited time span of their operation, the air quality would not be substantially reduced.

Toxic or noxious gases would not be anticipated. Operator would control dust from air drilling operations by misting or other acceptable means.

#### Precipitation:

Annual rainfall should range from about 8 to 11" at the proposed location. The majority of the numerous drainages in the surrounding area are of a non-perennial nature flowing only during early spring runoff and during extremely heavy rainstorms. This type of storm is rather uncommon as the annual precipitation is around 8".

Winds are medium and gusty, occurring predominantly from west to east. Air mass inversions are rare. The climate is semiarid with abundant sunshine, hot summers and cold winters with temperature variations on a daily and seasonal basis.

#### Surface Water Hydrology:

There are no live streams in general area. All drainages in immediate area are nonperennial streams and flow to the south and eventually into the Colorado River. A 15' undisturbed area would remain between wash and proposed drill pad to minimize erosion. Drainage rerouted on north edge of pad.

Some additional erosion would be expected in the area since surface vegetation would be removed. If erosion became serious, drainage systems such as water bars and dikes would be installed to minimize the problem. The proposed project should have minor impact on the surface water systems. The potentials for pollution would be present from leaks or spills. The operator is required to report and clean up all spills or leaks.

#### Groundwater Hydrology:

Some minor pollution of groundwater systems would occur with the introduction of drilling fluids (filtrate) into the aquifer. This is normal and unavoidable during rotary drilling operations. The potential for communication, contamination, and commingling of formations via the well bore would be possible. The drilling program is designed to prevent this. There is need for more data on hydrologic systems in the area and the drilling of this well may provide some basic information as all shows of fresh water would be reported. Water production with the gas would require disposal of produced water per the requirements of NTL-2B. The depths of

freshwater formations are listed in the 10-Point Subsurface Protection Plan. The pits would be If fresh water should be available from the well, the owner or surface agency may request completion as a water well if given approval.

#### Vegetation:

Plants in the area are of the salt-desert shrub types grading to the pinyon-juniper association several miles to the north. .

Proposed action would remove about four acres of vegetation. Removal of vegetation would increase the erosional potential and there would be a minor decrease in the amount of vegetation available for grazing.

The operator proposes to rehabilitate the surface upon completion of operations.

#### Wildlife:

Animal and plant inventory has been made by the BLM. No endangered plants or animals are known to inhabit the project area. The fauna of the area consists predominantly of mule deer, coyotes, rabbits, foxes, and varieties of small ground squirrels and other types of rodents and various types of reptiles. The area is used by man for the primary purpose of grazing domestic livestock and sheep. The birds of the area are raptors, finches, ground sparrows, magpies, crows, and jays.

#### Social-Economic Effect:

An on the ground surface archaeological reconnaissance would be required prior to approval of the proposed action. Appropriate clearances would then be obtained from the surface managing agency. If a historic artifact, an archaeological feature or site is discovered during construction operations, activity would cease until the extent, the scientific importance, and the method of mitigating the adverse effects could be determined by a qualified cultural resource specialist.

There are no occupied dwellings or other facilities of this nature in the general area. Minor distractions from aesthetics would occur over the lifetime of the project and are judged to be minor. All permanent facilities placed on the location would be painted a color to blend in with the natural environment. Present use of the area is grazing, recreation, and oil and gas activities.

Noise from the drilling operation may temporarily disturb wildlife and people in the area. Noise levels would be moderately high during drilling and completion operations. Upon completion, noise levels would be infrequent and significantly less. If the area is abandoned, noise levels should return to pre-drilling levels.

The site is not visible from any major roads. The overall effect of oil and gas drilling and production activity is significant in Grand County but it is difficult to assess the environmental impact of a single well on state and/or national levels. However, if said well was to produce in sufficient quantity, additional development wells might be anticipated. This additional development, in turn, would lead to greater environmental and socioeconomic consequences.

Should the wellsite be abandoned, surface rehabilitation would be done according to the surface agency's requirements and to USGS's satisfaction. This would involve leveling, contouring, reseeding, etc., of the location and possibly the access road. If the well should produce hydrocarbons, measures would be undertaken to protect wildlife and domestic stock from the production equipment.

There are no national, state, or local parks, forests, wildlife refuges or ranges, grasslands, monuments, trails or other formally designated recreational facilities near the proposed location.

The proposed location is within the Book Mountain Planning Unit. This Environmental Assessment Record was compiled by the Bureau of Land Management, the surface managing agency of the Federal surface in the area. The study includes additional information on the environmental impact of oil and gas operations in this area and gives land use recommendations. The E.A.R. is on file in the agency's State offices and is incorporated herein by reference.

#### Waste Disposal:

The mud and reserves pits would contain all fluids used during the drilling operations. A trash pit would be utilized for any solid wastes generated at the site and would be buried at the completion of the operations. Sewage would be handled according to State sanitary codes. For further information, see the 13-Point Surface Plan.

#### Alternatives to the Proposed Action:

1) Not Approving the Proposed Permit--The Oil and Gas Lease grants the lessee exclusive right to drill for, mine, extract, remove and dispose of all oil and gas deposits. Under leasing provisions, the Geological Survey has an obligation to allow mineral development if the environmental consequences are not too severe or irreversible. Upon rehabilitation of the site, the environmental effects of this action would be substantially mitigated, if not totally annulled. Permanent damage to the surface and subsurface would be prevented as much as possible under U.S.G.S. and other controlling agencies' supervision with rehabilitation planning reversing almost all effects. Additionally, the growing scarcity of oil and gas should be taken into consideration.

2) Minor relocation of the wellsite and access road or any special, restrictive stipulations or modifications to the proposed program would

not significantly reduce the environmental impact. There are no severe vegetative, animal or archaeological-historical-cultural conflicts at the site. Since only a minor impact on the environment would be expected, the alternative of moving the location is rejected. At abandonment, normal rehabilitation of the area such as contouring, reseeding, etc., would be undertaken with an eventual return to the present status as outlined in the 13-Point Surface Plan.

Proposed Supplemental Conditions of Approval:

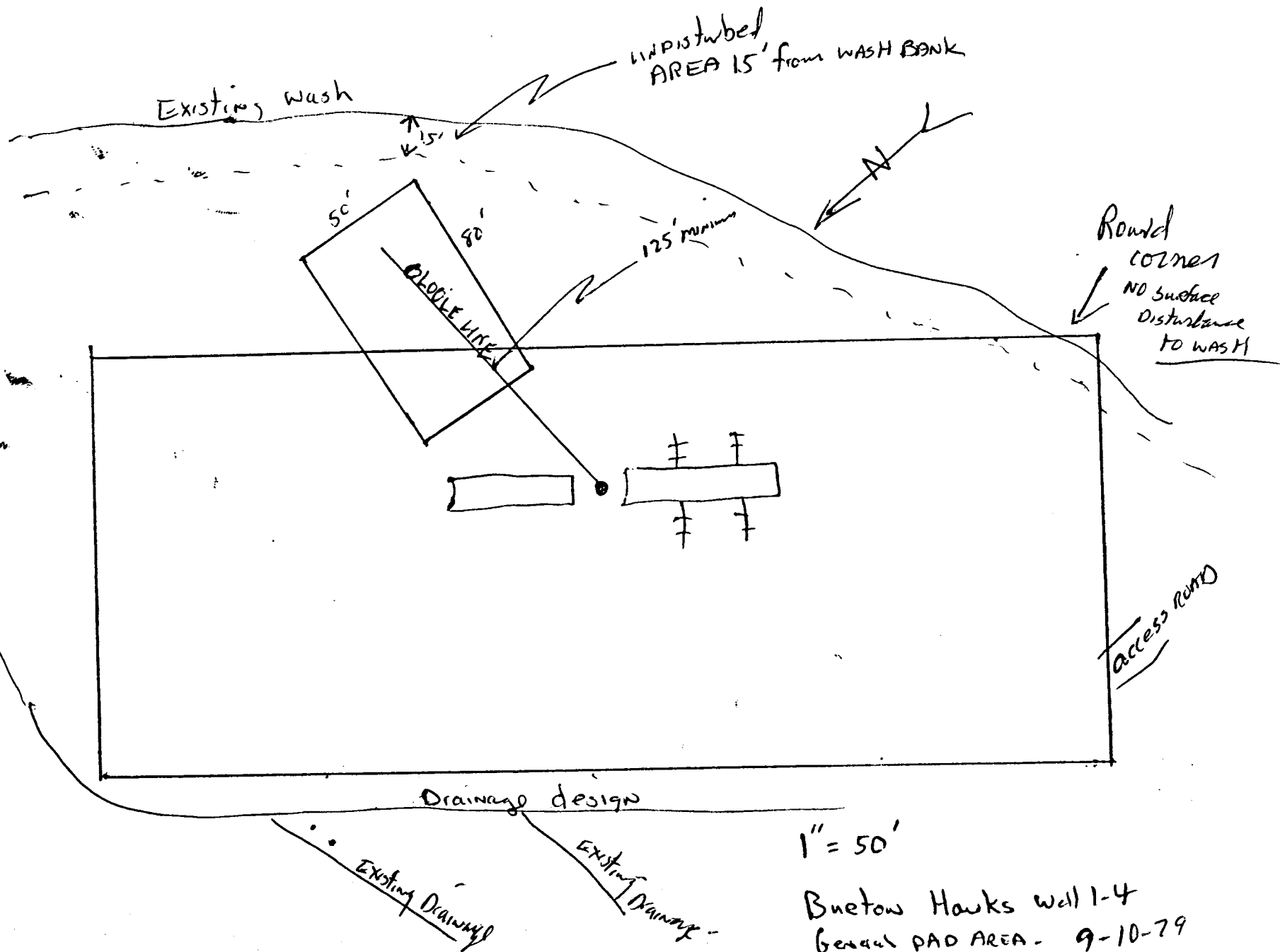
- 1) Dust from air drilling operation be controlled by acceptable methods.
- 2) Operator has option to use trash burn pit rather than portable trash cage. Trash pits should be fenced with fine mesh wire prior to drilling.
- 3) Low water crossing would be installed in lieu of culverts.
- 4) Sundry Notice would be required for approval of production facilities. Notice should include plat of proposed locations of facilities; size, grade of pipe and whether buried or surface laid, etc.
- 5) See well layout plat dated September 10, 1979, for summary of changes at onsite inspection.
- 6) 15' undisturbed area between wash bank and pad on south side.
- 7) Subject to BLM stipulations.

Adverse Environmental Effects Which Cannot Be Avoided:

Surface disturbance and removal of vegetation from approximately four acres of land surface for the lifetime of the project which would result in increased and accelerated erosional potential. Grazing would be eliminated in the disturbed areas and there would be a minor and temporary disturbance of wildlife and livestock. Minor induced air pollution due to exhaust emissions from rig engines of support traffic engines would occur. Minor increase in dust pollution would occur due to vehicular traffic associated with the operation. If the well is a gas producer, additional surface disturbance would be required to install production pipelines. The potential for fires, leaks, spills of gas, oil or water would exist. During the construction and drilling phases of the project, noise levels would increase. Potential for subsurface damage to freshwater aquifers and other geologic formations exists. Minor distractions from aesthetics during the lifetime of the project would exist. If the well is a producer, an irreplaceable and irretrievable commitment of resources would be made. Erosion from the site would eventually be carried as sediment in the . The potential for pollution to the would exist through leaks and spills.

If well is a producer, other development wells would be anticipated with substantially greater environmental and economic impacts.





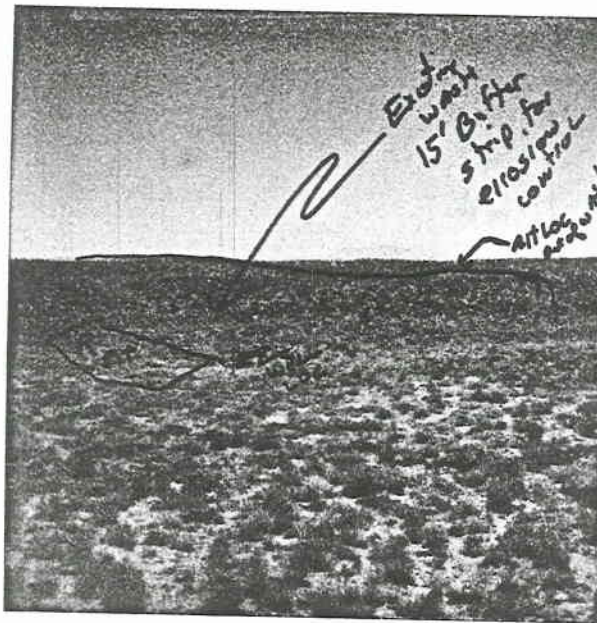
Determination:

This requested action does not constitute a major Federal action significantly affecting the environment in the sense of NEPA, Sec. 102(2)(C).

Date

9/19/79

E. W. Long  
 District Engineer  
 U. S. Geological Survey  
 Conservation Division  
 Oil and Gas Operations  
 Salt Lake City District



1-4 Burton Hamrick 9-4-79  
 1591' FNL 1612' FNL  
 acc 1 7205 R23 E

STATE OF UTAH  
DIVISION OF OIL, GAS, AND MINING

\*\* FILE NOTATIONS \*\*

Date: August 7, 1979  
Operator: Burton/Hawks, Inc.  
Well No: East Cisco Federal #1-4  
Location: Sec. 1 T. 20S R. 23E County: Grand

File Prepared: ☒

Entered on N.I.D.: ☒

Card Indexed: ☒

Completion Sheet: ☒

API Number: 43-019-30537

CHECKED BY:

Administrative Assistant: \_\_\_\_\_

Remarks:

Petroleum Engineer: M. G. Minder 8-10-79

Remarks:

Director: 7

Remarks:

INCLUDE WITHIN APPROVAL LETTER:

Bond Required: ☐

Survey Plat Required: ☐

Order No. 102-6 4/10/68

Surface Casing Change ☐  
to \_\_\_\_\_

Rule C-3(c), Topographic exception/company owns or controls acreage  
within a 660' radius of proposed site ☐

O.K. Rule C-3 ☐

O.K. In \_\_\_\_\_ Unit

Other:

☐ Letter Written/Approved



SCOTT M. MATHESON  
Governor

GORDON E. HARMSTON  
Executive Director,  
NATURAL RESOURCES

CLEON B. FEIGHT  
Director

STATE OF UTAH  
DEPARTMENT OF NATURAL RESOURCES  
DIVISION OF OIL, GAS, AND MINING  
1588 West North Temple  
Salt Lake City, Utah 84116  
(801) 533-5771

OIL, GAS, AND MINING BOARD

CHARLES R. HENDERSON  
Chairman

JOHN L. BELL  
C. RAY JUVELIN  
THADIS W. BOX  
CONSTANCE K. LUNDBERG  
EDWARD T. BECK  
E. STEELE MCINTYRE

August 10, 1979

Burton/Hawks Drilling, Inc.  
PO Box 359  
Casper, WY 82602

Re: East Cisco - Federal #1-1  
Sec. 1, T. 20S. R. 23E.  
Grand County  
East Cisco Federal #1-4  
Sec. 1, T. 20S., R. 23E.  
Grand County

Dear Sir:

Insofar as this office is concerned, approval to drill the above referred to well is hereby granted in accordance with the Order issued in Cause No. 102-6 dated April 10, 1968.

Should you determine that it will be necessary to plug and abandon this well, you are hereby requested to immediately notify the following:

MICHAEL T. MINDER - Geological Engineer  
HOME: 876-3001  
OFFICE: 533-5771

Enclosed please find Form OGC-8-X, which is to be completed whether or not water sands (aquifers) are encountered during drilling. Your cooperation in completing this form will be appreciated.

Further, it is requested that this Division be notified within 24 hours after drilling operations commence, and that the drilling contractor and rig number be identified.

The API numbers assigned to these wells are 43-019-30536 and 30537 in succession.

Sincerely,  
DIVISION OF OIL, GAS AND MINING

*M.T. Minder*

MICHAEL T. MINDER  
GEOLOGICAL ENGINEER

October 11, 1979

Burton/Hawks, Inc.  
P.O. Box 359  
Casper, Wyoming 82602

Well No. East Cisco Federal #1-3  
Sec. 1, T. 20S, R. 23E.,  
Grand County, Utah

Insofar as this office is concerned, approval to drill the above referred to oil well is hereby granted in accordance with the Order issued in Cause 102-16 dated August 22, 1979. However, at this time, the approval granted for well No. East Cisco Federal 1-2 and East Cisco Federal 1-4 is rescinded until further notice.

Should you determine that it will be necessary to plug and abandon this well, you are hereby requested to immediately notify one of the following:

MICHAEL T. MINDER  
Geological Engineer  
Office: 533-5771  
Home: 876-3001

FRANK N. HAMNER  
Chief Petroleum Engineer  
Office: 533-5771  
Home: 531-7827

Enclosed please find Form OGC-8-X, which is to be completed whether or not water sands (aquifers) are encountered during drilling. Your cooperation in completing this form will be appreciated.

Further, it is requested that this Division be notified within 24 hours after drilling operations commence, and that the drilling contractor and rig number be identified.

The API number assigned to this well is 43-019-30557.

Sincerely,

DIVISION OF OIL, GAS AND MINING

Michael T. Minder  
Geological Engineer

/b:tm

cc: USGS



SCOTT M. MATHESON  
Governor

GORDON E. HARMSTON  
*Executive Director,*  
NATURAL RESOURCES

CLEON B. FEIGHT  
*Director*

STATE OF UTAH  
DEPARTMENT OF NATURAL RESOURCES  
DIVISION OF OIL, GAS, AND MINING  
1588 West North Temple  
Salt Lake City, Utah 84116  
(801) 533-5771

OIL, GAS, AND MINING BOARD

CHARLES R. HENDERSON  
*Chairman*

JOHN L. BELL  
C. RAY JUVELIN  
THADIS W. BOX  
CONSTANCE K. LUNDBERG  
EDWARD T. BECK  
E. STEELE MCINTYRE

November 21, 1979

Burton/Hawks  
P.O. Box 359  
Casper, Wyoming 82602

Gentlemen:

*Attached is a copy of the final order in Cause No. 102-16B.*

*You will note that this order requires a copy of the property or lease line to be filed with the Application for Permit to Drill. If this only covers the pertinent section, so state.*

*No new Applications for Permit to Drill will be granted unless all required forms on existing wells are up-to date. Also, some operators have not been submitting their 2 mill conservation levy as authorized under Section 40-6-14, Utah Code Annotated, 1953, as amended. The required sales report, Form 5, may be obtained upon request from this office.*

*Sincerely,*

DIVISION OF OIL, GAS AND MINING

*Cleon B. Feight*  
Cleon B. Feight  
Director

/bzm

cc Well Files

October 7, 1980

Burton/Hawks, Inc.  
Box 359  
Casper, Wyoming 82602

RE: Well No. East Cisco Federal #1-4  
Sec. 1, T. 20S, R. 23E.,  
Grand County, Utah

Well No. East Cisco Federal #1-2  
Sec. 1, T. 20S, R. 23E.,  
Grand County, Utah

Gentlemen:

In reference to above mentioned wells, considerable time has gone by since approval was obtained from this office.

This office has not received any notification of spudding. If you do not intend to drill these wells, please notify this Division. If spudding or any other activity has taken place, please send necessary forms. If you plan on drilling this location at a later date, please notify as such.

Your prompt attention to the above will be greatly appreciated.

Very truly yours,

DIVISION OF OIL, GAS AND MINING

BARBARA HILL  
CLERK TYPIST

/bjh

RECEIVED

NOV 12 1980

DIVISION OF  
GAS

Conservation Division  
2000 Administration Building  
1745 West 1700 South  
Salt Lake City, Utah 84104

November 10, 1980

Burton/Hawks, Incorporated  
P. O. Box 359  
Casper, Wyoming 82602

*Location  
Abandoned*

Re: Returned Application for Permit to Drill  
Well No. 1-4  
Section 1, T.20S, R.23E  
Grand County, Utah  
Lease No. U-17049

Gentlemen:

The Application for Permit to Drill the referenced well was approved November 1, 1979. Since that date no known activity has transpired at the approved location. Under current District policy (Conditions of Approval Item No. 10), Application's for Permit to Drill are effective for a period of one year. In view of the foregoing, this office is rescinding the approval of the referenced application without prejudice. If you intend to drill at this location on a future date, a new Application for Permit to Drill must be submitted.

This office requires a letter confirming that no surface disturbance has been made for this drill site. Any surface disturbance associated with the approved locations of this well is to be rehabilitated. A schedule for this rehabilitation must, then, be submitted. Your cooperation in this matter is appreciated.

Sincerely yours,

(Orig. Sgd.) R. A. Henricks

*for*  
E. W. Guynn  
District Oil and Gas Supervisor

bcc: ADCM, O&G, CR, Denver  
BLM-Moab  
Utah State Oil and Gas ✓  
Utah State BLM  
USGS, Vernal  
Well File  
APD Control

RAH/TM/kr